Indicators for Healthy Living Goals: A Working Paper

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INTRODUCTION

In the process of developing goals, objectives and strategies for health promotion in Saskatchewan, the Minister's Advisory Committee on Health Promotion defines goals as broad directional statements of intent. Objectives are measurable, defined end-results to be achieved within a determined time period. For each of the objectives in *Healthy Living Goals: A Design for Health Promotion in the 1990s,* this document discusses the baseline data, includes references to the sources of these data, and presents several definitional issues which require resolution before many of the objectives can be deemed measurable. It also comments on the indicators which will be used to monitor the objectives and measure change over the next decade.

The baselines and indicators in this document were developed through the expert committee process. The aim was to identify baseline values for each of the objectives which were relevant to the quantitative targets in the objectives, which were estimated or measured for the Saskatchewan population, and which had been produced in accordance with accepted statistical procedures. In all cases the most current available data were used.

Published statistical data and established population-based survey sources for Saskatchewan and Canada were initially consulted. These provided indicators for the Saskatchewan population or proxy indicators using national data. Where a direct measure of the objective was not possible based on available data, other proxy indicators were sought. This information was then referred back to the expert committees. The committees either approved the indicators and recommended appropriate targets for the objectives, or conceded that current baselines were not available and recommended that this be reflected in the document. In several instances the expert committees referred the Health Status Research Unit to additional sources of data. Following further consultation, final recommendations on the indicators and the year 2000 targets were made by the chairpersons of the expert committees.

In addition to providing information on available baselines and indicators, this document is also a working paper which the Health Status Research Unit will utilize in developing a plan for future monitoring of progress toward achievement of Saskatchewan's healthy living goals.

EQUITY

By the year 2000:

By improving the health of disadvantaged groups, the differences in health status between high and low income groups, various geographical groups, and identifiable cultural groups in Saskatchewan will be reduced by 50 per cent.

Income Groups:

No baseline data are available for Saskatchewan. Wilkins' (1990) study of the Canadian urban population has indicated that the poor in Canadian cities are twice as likely as the wealthy to die prematurely. D'Arcy (1990) suggests that the health status of various socio-economic groups differs in terms of: life expectancy, overall morbidity, disorder-specific morbidity, service utilization, overall mortality, cause-specific mortality, self-reported sense of well-being, and self-reported health protective behaviours. Certain data would have to be collected by survey in this province. Other indicators could be derived from existing vital statistics, service utilization and census data.

Regional Disparities:

Indicators are available to monitor regional health status differences in Saskatchewan. For example, indicators of the health status disparity between Northern Saskatchewan residents and the rest of the province include mortality from certain causes such as accidents, suicide and pneumonia; rates of communicable diseases, including sexually transmitted diseases; and certain chronic diseases including various cancers.

Cultural Groups:

Certain indicators of health status differences by "cultural" group are available for the Registered Indian population as compared to the Saskatchewan provincial population. Disparities between Registered Indian health status and that of the province as a whole which could be monitored include infant and perinatal mortality rates, suicide rates in certain age groups, major causes of death, hospitalization rates, and incidence rates of certain infectious illnesses such as tuberculosis. Survey data would be required to identify other cultural group differences in health.

HEALTHY ENVIRONMENTS

By the year 2000:

100 per cent of the Saskatchewan population will have access to safe and adequate drinking water.

The term "safe" remains to be defined. No baseline data are available to measure this objective. Although all municipal water supplies in Saskatchewan are regulated, some municipalities may not be in conformity with the regulations. Private water sources are not regulated and currently testing is voluntary.

All aquatic recreational facilities in Saskatchewan will have safe water quality.

Aquatic recreational facilities in this context include natural bodies of water such as lakes, and manmade bathing facilities such as pools. Baseline data for Saskatchewan are not readily available.

Saskatchewan's outdoor air quality will not exceed 25 (good), as measured by the Air Quality Index.

Outdoor air quality is monitored at several sites throughout Saskatchewan by the National Air Pollution Survey Program. The Air Pollution Quality Index rates outdoor air quality; any score up to 25 is rated as "good."

The current Saskatchewan baseline is 30, or in the range of 26-50, which is interpreted as only "fair."

All people in Saskatchewan will live, work and play in indoor environments which meet the national/provincial air quality standards or objectives.

No baseline data are available for this objective.

Exposure to harmful chemicals in industrial, agricultural and domestic use will be reduced by 50 per cent.

No baseline data are available for this objective.

There will be at least a 50 per cent reduction in the production of landfill waste.

The Department of the Environment and Public Safety have the responsibility for monitoring landfill waste reduction in Saskatchewan. They have set the 50 per cent reduction target (for the year 2000) and will address the issue of monitoring progress.

ACCIDENT PREVENTION

By the year 2000:

There will be less than 40 injuries from traffic accidents for every hundred million vehicle kilometres (mvk) traveled each year.

These data are taken from the Saskatchewan Highways Department "Traffic Accident Information System" (TAIS) database. Baseline in 1989 is 73 injuries from traffic accidents for every hundred million vehicle kilometres (mvk) traveled. The year 2000 target represents a 10 per cent improvement in the injury rate as determined by SGI using a negative exponential mathematical model.

There will be less than one death from traffic accidents for every hundred million vehicle kilometres (mvk) traveled each year.

These data are taken from the Saskatchewan Highways Department "Traffic Accident Information System" (TAIS) database. The 1989 baseline is 1.73 deaths from traffic accidents for every hundred million vehicle kilometres (mvk) traveled. The year 2000 target represents a 10 per cent improvement in the injury rate as determined by SGI using a negative exponential mathematical model.

Due to accidents in the workplace there will be less than two time-loss injuries per 100 workers each year.

In Saskatchewan, in 1988, there were 3.05 time loss injuries per 100 workers, lower than the Canadian rate of 4.53, and the Manitoba rate of 4.20 per 100 workers (Canada. Statistics Canada, 1989).

Due to accidents in the workplace there will be less than five deaths per 100,000 workers each year.

The number of work-related fatalities in Saskatchewan has been declining since 1981. The death rate per 100,000 employees in 1988 was 7.47 (Canada. Statistics Canada, 1989).

More than 80 per cent of the adult population will take steps to reduce injuries in the home.

The baseline for this objective will be derived from the 1990 Health Promotion Survey. Adults are defined as individuals age 15 and older. The target figure of 80 per cent was chosen from a similar target used in the American objectives for the year 1990 (U.S., 1980).

Injury reduction steps which are included in the 1990 Health Promotion survey questionnaire include installing smoke detectors, and having fire extinguishers and first aid kits in the home. Future surveys should include additional "injury reduction steps."

More than 80 per cent of the farm population will take steps to reduce injuries on the farm.

No baseline data are available for this objective.

A reliable monitoring system will be in place to provide information about injuries occurring in the home, on the farm, in the workplace, and during sports and leisure activities.

Data which are currently available on "where" an injury took place (in the home, on the farm, etc.) relate only to a fraction of all hospitalized injuries in the province (Saskatchewan. Sask. Health. Child Safety Committee, 1987:20). This severely limits monitoring and analysis of injuries in Saskatchewan.

ALCOHOL AND DRUG ABUSE

By the year 2000:

More than 75 per cent of youth (12 - 18 year olds) will not use alcohol or other drugs.

Throughout this document youth are defined as 12-18 year olds. "Free of alcohol," or abstention, is defined as no use in the past year (SADAC, 1986).

In 1986, 35 per cent of Saskatchewan youth between the ages of 12 and 18 abstained from alcohol use; 86 per cent did not use cannabis. This varied by age; 73 per cent of 12 year olds abstained from alcohol use, whereas only seven per cent of 18 year olds were abstainers (SADAC 1986).

Age-specific data on drug use between 1977 and 1989 are available for youth in the province of Ontario (Addiction Research Foundation, 1989). These data will be used to establish targets for Saskatchewan specific to each age from 12-18. A survey to monitor drug use in Saskatchewan among youth and young adults would be required to measure progress.

More than 95 per cent of young adults (19 - 34 year olds) will not use illicit drugs.

Young adults are defined as those between the ages of 19 and 34. The National Alcohol and Other Drugs Survey (Canada. Health and Welfare Canada, Health Promotion Directorate, 1990) indicates that 15 per cent of Canadian young adults between the ages of 20 and 34 used marijuana or hashish in the past year. No data specific to Saskatchewan are available.

More than 80 per cent of adults will demonstrate responsible behaviour concerning the use of alcohol.

Responsible behaviour concerning the use of alcohol remains to be defined. A variety of indicators could be used to measure this objective. These include per capita consumption of alcohol, self-reported alcohol use, from the 1990 Health Promotion Survey and the 1990 Heart Health Survey; drinking and driving behaviour information from various sources including arrests for alcohol offenses; and utilization data on alcohol-related causes of hospitalization. The incidence of fetal alcohol syndrome could be a measure of responsible drinking behaviour, however data are not available.

More than 80 per cent of adults will practice safe use of medications.

"Safe use of medications" remains to be defined. Use of medications may be monitored through examination of hospitalizations and deaths attributable to medication overdoses and side-effects. Surveys of patients, pharmacies and prescribers to establish a baseline and to monitor change may be required.

COMMUNICABLE DISEASES

By the year 2000:

More than 95 per cent of children (six year olds) will have all of their recommended immunizations.

At the present time it is not known how many children in Saskatchewan have received their immunizations.

More than 80 per cent of the at-risk adult population will be aware of the immunizations which are both available and recommended.

The adult groups that have been identified as at-risk are occupational groups, including health workers, travellers, women of child bearing age, and certain groups whose lifestyle puts them at elevated risk. This objective may be measurable among certain occupational groups in the health professions.

The annual incidence rates of sexually transmitted diseases (STDs) will be less than:

175/100,000 for chlamydia;
65/100,000 for gonorrhea;
15/100,000 for herpes;
the current annual number of new reported HIV positives.

These targets represent 50 per cent of the 1988 annual rates (Saskatchewan. Sask. Health, 1989: Table 31). The number of new HIV positives reported in 1988 was 31.

95 per cent of youth (12 - 18 year olds) and young adults (19 - 34 year olds) will be aware of behaviours which prevent the transmission of sexually transmitted diseases (STDs).

King et al (1988), study on youth and AIDS indicates nationally a 70 per cent correct response rate among youth (12-18) to their survey questions pertaining to knowledge about STDs.

Baseline data for Saskatchewan young adults will be available from the 1990 Health Promotion Survey which includes several questions about sexual health, including awareness of ways to prevent sexually transmitted diseases.

Future surveys may provide data to monitor trends.

The incidence of infectious diarrheal diseases, which are commonly transmitted through food and water, will be reduced by 20 per cent.

Trends in the rates of two reportable enteric diseases, salmonellosis and shigellosis, will be monitored as measures for this objective. In 1988 these rates were: 30.9 for salmonellosis and 18.2/ 100,000 for shigellosis (Saskatchewan. Sask. Health, 1989).

More than 90 per cent of the public will be aware of the major factors contributing to water and food-borne illnesses.

No baseline data are available for this objective. Measures need to be developed. The factors contributing to water and food-borne illness remain to be defined.

100 per cent of commercial food workers will be aware of the major factors contributing to water and food-borne illnesses.

No baseline data are available for this objective. Measures need to be developed. The occupational categories to be included as food workers remain to be defined.

The annual rate of new cases of tuberculosis (TB) will be less than 10/100,000 and the annual rate of reactivated cases of tuberculosis will be less than 1/100,000.

> The 1988 rate for new cases of tuberculosis was 14.75 per 100,000. The current rate of reactivation is 1.34 per 100,000 (Saskatchewan. Sask. Health, 1989).

More than 75 per cent of the at-risk population will be aware of how tuberculosis is transmitted.

> The at-risk population is identified as those communities in which the new case rate for tuberculosis exceeds .1 per cent, or 10 per 100,000.
>
> No baseline data are available for this objective.

ENTAL HEALTH

By the year 2000:

100 per cent of the Saskatchewan population will be aware of the major factors contributing to, and will be able to identify opportunities to promote, good mental health.

> No baseline data are available for this objective. Measures need to be developed[1].

[1] Mental Health for Canadians: Striking a Balance (Canada. Health and Welfare, 1988b) delineates the factors influencing good mental health as environmental, social and individual. These include (1) positive supportive social and legal environments which uphold human rights and restrain destructive behaviour; (2) group social support or creation of healthy environments; (3) individual attainment of coping skills and a personal sense of well-being, safety and empowerment.

100 per cent of the Saskatchewan population will be aware of the causes, the factors contributing to, and the social costs to families, of mental illness in Saskatchewan.

No baseline data are available for this objective. Measures need to be developed.

100 per cent of employers and employees and employee organizations will be aware of work-related contributors to good mental health.

No baseline data are available for this objective. Measures need to be developed.

More than 75 per cent of the population will live in a positive, supportive environment.

A "positive, supportive environment" includes factors such as social support (family and friends) and basic needs (housing, food, and income).

An indirect measure, available from (1990) Health Promotion survey data, is the number of family and friends one has. Another indirect measure is economic security. In 1986, in Saskatchewan, 16.4 per cent of families and 33.3 per cent of unattached individuals were "low income" (Ross and Shillington, 1989).

The Psycho-social questionnaire supplement to the Saskatchewan Heart Health Survey (1990) measures social and emotional support and participation. These data may provide useful information upon which to base measures for this objective.

More than 75 per cent of people with mental illnesses and their care-givers will live in a positive, supportive environment.

In the community, those individuals who live with mental illness themselves and in their families require supportive environments. These include adequate shelter and income, nurturing and acceptance, and opportunities for meaningful social roles. Families of the mentally ill also need acceptance and social support. No baseline data are available for this objective.

More than 75 per cent of the population will live with a sense of personal health and well-being.

No Saskatchewan baseline is available.

More than 75 per cent of the population will experience personal control over their lives.

The Psycho-social questionnaire supplement to the Saskatchewan Heart Health Survey (1990) includes a "Mastery Scale" from which baseline indicators could be developed.

More than 80 per cent of the population will feel safe and secure in their home and community.

Currently national data are available regarding personal perception of safety in the community. In the General Social Survey, Cycle 3, Personal Risk (1987 preliminary data) 38 per cent of women (12 per cent of men) indicated that they felt unsafe walking alone in their own neighbourhood after dark. Among the elderly, 37 per cent felt unsafe walking alone in their own neighbourhood after dark compared to 24 per cent of those in other age groups.

This objective is also intended to address the issue of family violence and spousal and child abuse. Saskatchewan Social Services data are being examined for their potential use to provide baseline indicators.

NUTRITION

By the year 2000:

More than 75 per cent of the population will eat foods following *Canada's Guidelines for Healthy Eating*.

The Saskatchewan Heart Health Survey (1990) dietary analysis of reported eating behaviours will be used to provide baseline measures for this objective. The last national, population-based nutrition survey was the Nutrition Canada Survey conducted in 1972. The "Report of the Task Group on Food Consumption" (Canada. Health and Welfare Canada, 1989c) compiled all currently available information about food consumption. The need for a national nutrition monitoring and surveillance system was identified by the experts in the task group.

More than 75 per cent of the population will be aware of the general directions for eating as outlined in *Canada's Guidelines for Healthy Eating*.

No baseline data are available for this objective. Achievement of the objective could be measured through a survey question which asks individuals to indicate what they believe are some of the directions for healthy eating.

More than 75 per cent of the population will consume diets that are low in fat, and high in complex carbohydrate.

Baseline data for this objective will be available from the Saskatchewan Heart Health Survey (1990) dietary analysis. This survey includes several questions about fat and carbohydrate consumption. Current estimates suggest that fats comprise 38 per cent and carbohydrates 48 per cent of total energy intake of Canadians. The Canadian target is 30 per cent or less of the daily caloric intake derived from fat, and no more than 10 per cent saturated fat. Fifty-five percent of the daily intake should be carbohydrates (Canada. Health & Welfare, 1990a).

More than 75 per cent of the population will be aware of the benefits of choosing low fat, high complex carbohydrate diets.

Baseline data are partially provided by the Saskatchewan Heart Health Survey (1990) which found that 86 per cent of the people in Saskatchewan knew that fat consumption affects health. However, they were not sure about specific health problems related to fat consumption. Fourteen percent of the respondents were aware that excess fat consumption contributed to heart disease.

99 per cent of the population will have access to sufficient food on a daily basis.

No accurate baseline data or estimates are available. "Access" and "sufficient food" require definition. An indicator for this objective recommended by the Family Foundation is the number of children in Saskatchewan currently benefiting from feeding programs. The "Canadian Hunger Count 1989 Summary," a report produced annually by the Canadian Association of Food Banks, provides data regarding the numbers of people that are utilizing food bank services. For example, they suggest that one in 65 people in Canada have at least one monthly food bank experience.

75 per cent of public eating places will provide nutritious food choices allowing patrons to follow *Canada's Guidelines for Health Eating.*

Baseline data are not available for this objective. "Nutritious food choices" are those "in compliance with *Canada's Guidelines for Healthy Eating.*"

A proxy measure for this objective could be the number of restaurants and public eating places that meet the criteria of the Heart Smart Restaurant Program. The American target for the year 2000 is 75 per cent (U.S. Sept. 1989).

PHYSICAL ACTIVITY

By the year 2000:

85 per cent of the population will be aware of the benefits of regular physical activity.

No baseline data are available. The 1990 Health Promotion Survey includes items dealing with awareness of the benefits of regular activity, which may be used as proxy measures.

More than 90 per cent of the population will participate in regular physical activity.

The Canada Fitness Survey (Canada. Health and Welfare Canada, 1981) indicated that nationally 57 per cent of the respondents participated in regular activity of three or more hours per week for nine or more months of the year. In 1988, the Campbell's Wellness Survey reported that this level had increased to 79 per cent (Stephens and Craig 1988:54). Data for the Saskatchewan population are required. Future surveys may provide data to monitor change.

More than 60 per cent of the population will participate in regular physical activity of such an intensity that it improves cardiovascular health.

The Canada Fitness Survey (Canada. Health and Welfare Canada, 1981) indicated that 24 per cent of respondents reported participation in activity at the three or more kilocalories per day level of intensity. In 1988, this figure was 31 per cent (Stephens and Craig 1988:54). Data for the Saskatchewan population are required. Future surveys may provide data to monitor change.

SMOKING

By the year 2000:

More than 90 per cent of youth (12 - 18 year olds) will not use tobacco products.

In 1986, 31 percent of Saskatchewan youth (ages 12- 18) used tobacco (SADAC, 1986). This varied substantially from 12 per cent of 12 year olds, to 42 per cent of 18 year olds using tobacco.

More current baseline information for ages 10 - 19 may be available from the "Adolescent Smoking Survey" sponsored by Health and Welfare Canada.

More than 85 per cent of adults will not use tobacco products.

In the 1985 Health Promotion Survey (Canada. Health and Welfare Canada, 1988c) 70 per cent of adults (ages 15 and over) in Saskatchewan indicated that they were non-smokers. The 1990 Saskatchewan Heart Health Survey found that 74 per cent of those surveyed between the ages of 18 and 74 were non-smokers.

100 per cent of schools (including post-secondary institutions) will be smoke-free.

A national survey regarding school smoking policies was conducted in the fall of 1990 by Health and Welfare Canada in cooperation with provincial Health and Education Departments. The results will provide baseline information on the number of schools that have smoking policies and the extent of the policy (i.e. totally smoke-free, or smoking in designated areas).

75 per cent of workplaces will be smoke-free.

This may be measurable by the number of employers of different workplace categories that have non-smoking policies in the workplace. The target of 75 per cent is the American target for the year 2000 (U.S. Sept. 1989). Current U.S. baseline figures vary by type of workplace, from 20 per cent to 50 per cent, with more large employers having policies (U.S., Sept. 1989). In Canada all federal workplaces have non-smoking policies.

100 per cent of acute health care facilities will be smoke-free.

In 1988 a hospital survey was conducted by Health Promotion Branch, Saskatchewan Health, regarding smoke- free hospital environments. Ninety per cent of the hospitals that responded to the questionnaire reported that they had a smoking policy. Of those hospitals with a policy, 14 per cent are completely smoke-free, while 86 per cent of the hospitals indicated that smoking was permitted only in designated areas (73 per cent of these designated areas have outside ventilation).

85 per cent of public places will be smoke-free.

No baseline is available. As a proxy measure, the existence of policies dealing with smoking in banks, elevators, places of public assembly, theatres, public transport and retail stores could be monitored. In Saskatoon municipal by-laws forbid smoking in elevators, city buses, and movie theatres and restrict smoking to designated areas of retail stores and places of public assembly (City of Saskatoon, By-law 6116).

75 per cent of the population will be aware that smoking is a leading risk factor for heart and lung disease and cancer, and is addictive.

No baseline data are available for this objective. Measures for the adult population may be taken from the 1990 Health Promotion Survey which includes two questions regarding smoking and heart disease and smoking and physical health. The (1990) Saskatchewan Heart Health Survey results indicate that 63 per cent of respondents aged 18 to 74 were aware that smoking is related to heart disease.

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